

## Remarks

These remarks and amendments are submitted in response to an office action dated June 28, 2006. Claims 1-14 are pending and rejected. The specification, drawings, and claims are objected to.

The specification is objected to for lacking page numbers. The Examiner also requests revised status information about two concurrently filed applications referenced in the pending application. Applicants have addressed the Examiner's concerns by means of a substitute specification, as described on page 2 of this response. Applicants respectfully assert that the objections have been overcome.

The drawing is objected to for lines that are not solid. An enclosed formal drawing sheet replaces informal Figure 1. Applicants respectfully assert that the objection has been overcome.

The claims are objected to for containing annotations in brackets. The claims are amended to delete the bracketed material. Claim 12 has also been amended to correct a typographical error in the spelling of the word "refluxed."

Claims 1 and 6-9 are rejected under 35 U.S.C. § 112, first paragraph, for claiming adding dimethyl ether anywhere in the process. Applicants respectfully traverse the rejection. The specification provides support for adding DME anywhere in the system, "to achieve the desired effect of enhancing phase separation therein," at paragraph [0025]. Then, the specification provides examples to illustrate where within the system the DME may be added. Adding DME anywhere in the system specifically to enhance separation is not intuitive and is illustrated by the examples of paragraph [0025]. Undue experimentation is not required because the system can be effective, wherever the DME is added. Withdrawal of the rejection is respectfully requested.

Claims 1-10 are rejected under 35 U.S.C. § 112, second paragraph, as indefinite for claim 1 failing to claim how methyl acetate is processed. Applicants respectfully traverse the rejection. Methyl acetate is one of several optional feed stock materials listed in claim 1. How methyl acetate, if used, is separated after the main reaction process is described in the pending specification at paragraphs [0019]-[0020]. Claiming how it is processed is not needed to meet the threshold of § 112, second paragraph. Withdrawal of the rejection is respectfully requested.

Claims 1, 2, 11, 12, and 14 are rejected under 35 U.S.C. § 103(a) as obvious over United States Patent Number 5,371,286 (*Blay*) in view of Japan Patent Number 09235250 (JP 250). Applicants respectfully traverse the rejection. *Blay* does not teach adding dimethyl ether to enhance its separation process, but merely suggests that dimethyl ether can be used as one of several possible feedstocks for carbonylation with no indication that adding it in excess provides any advantages. JP 250 suggests using dimethyl ether as a feed stock material for forming acetic acid. However, JP 250 does not suggest using dimethyl ether in a volume consistent with having a volume of dimethyl ether present upon reaction completion and during fluid separation to encourage a more effective separation. In fact, JP 250 provides no discussion of ways to encourage separation of any of the reaction components. JP 250 uses resin and then provides chemicals to recover the resin effectiveness.

*Blay* and JP 250, alone or in combination, do not teach, show or suggest adding dimethyl ether to the process in an amount effective to enhance separation of the first overhead to form the first and second liquid phases as recited in claim 1 and claims 2-10 dependent thereon. Also, *Blay* and JP 250, alone or in combination, do not teach, show or suggest adding dimethyl ether to the mixture to facilitate the separation as recited in claim 11. Additionally, *Blay* and JP 250, alone or in combination, do not teach, show or suggest adding dimethyl ether to the mixture, to the overhead fraction or to the refluxed portion of the first liquid phase in an amount effective to enhance phase separation of the first and second liquid phases as recited in claim 12 and claims 13 and 14 dependent thereon. Withdrawal of the rejection is respectfully requested.

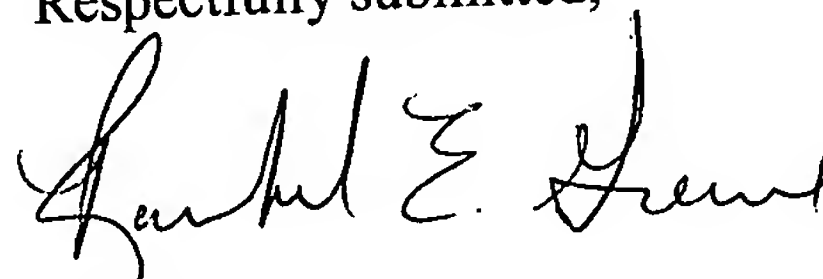
Claims 1-6 and 11-14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12, 13, and 27-29 of United States Patent Application 10/708,420. Claims 1-6 and 11-14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 4-6, 16, 26, and 34 of United States Patent Application 10/708,421. Claims 1 and 4-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 4 of United States Patent Application 11/116,471. Applicants are assuming that the Examiner meant United States Patent Application 11/116,771 and have submitted a terminal disclaimer reflecting

the number 11/116,771. Provisional terminal disclaimers are enclosed. Withdrawal of the rejections is respectfully requested.

Applicants believe that the present pending claims are in condition for allowance. Applicants respectfully request that the Examiner reconsider the rejection of the pending claims in light of the above analysis.

In order to facilitate the resolution of any questions presented by this paper, Applicants request that the Examiner directly contact the undersigned attorney by telephone at 713-787-1595 to further the discussion, reconsideration, and allowance of the claims.

Respectfully submitted,



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